



Tab 13

## Report on High School Graduates Performance

Coordinating Board for Higher Education  
March 6, 2019

### BACKGROUND

The Coordinating Board for Higher Education's Missouri High School Graduates Performance Report tracks Missouri's public high school graduates entering the state's public two- and four-year degree-granting postsecondary institutions as first-time, full-time, undergraduate, degree-seeking students in the fall semester following their high school graduation. The annual report, which was first issued in 1996, provides information to secondary and postsecondary stakeholders regarding student preparation, persistence, and completion. The law that authorizes the CBHE to prepare the annual report, § 173.750, RSMo, describes the report's contents, which must include "grade point averages after the initial college year...; the percentage of students returning to college after the first and second half of the initial college year, or after each trimester of the initial college year; the percentage of students taking noncollege level classes in basic academic courses during the first college year, or remedial courses in basic academic subjects of English, mathematics, or reading; and other such data as determined by rule and regulation of the coordinating board for higher education."

Overall enrollment in remediation among this cohort continues its multi-year decline, as does enrollment in remedial math. Fall-to-fall persistence declined slightly from the fall 2016 cohort, although persistence among minority students tended to increase, and Caucasian students declined. 49.4 percent of incoming students in fall 2012 had earned a degree or certificate from a public two- or four-year institution by spring 2018.

### CURRENT STATUS

#### Enrollment and Preparation

This year's report provides data about postsecondary enrollment and preparation of the public high school graduating class of 2018.

Total enrollment of same-year Missouri public high school graduates in Missouri public institutions decreased by 0.4 percent from 22,160 first-time, full-time, degree-seeking undergraduates in 2017 to 22,067 in 2018. 10,401 students (47.1 percent) attended two-year institutions, and 11,666 students (52.9 percent) attended four-year institutions. Enrollment of first-time, full-time, degree-seeking students decreased by 0.2 percent at public two-year institutions from the previous year and decreased at public four-year institutions by 0.6 percent. Detailed summary tables are included in the attachment to this item.

This report provides the state's benchmark measurement of enrollment in remedial coursework, which continues to decline. The MDHE continues to work with the institutions to encourage the wider implementation of co-requisite coursework, which places more entering students in credit-bearing courses and shortens their paths to a credential. Along with corequisite supports, nearly every institution is using multiple measures alongside standard entrance examinations such as ACT and SAT, including more holistic measures such as high school GPA, to place students in the correct level of coursework. Additionally, the Missouri Math Pathways initiative has worked to align secondary and postsecondary mathematics to ensure a seamless transition from high school to college, and MDHE is continuing this work with DESE and the College Board of Mathematical Sciences (CBMS). These and other policy changes and major statewide initiatives continue to impact the benchmark remediation rate.

Remedial Participation of Recent Missouri Public High School Graduates in Public Postsecondary Institutions					
	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018
<b>Total</b>	30.8%	28.2%	26.8%	22.8%	21.5%
<b>Math</b>	26.2%	23.8%	21.5%	17.6%	17.5%
<b>English</b>	12.3%	10.0%	11.4%	10.1%	8.2%
<b>Reading</b>	7.6%	6.1%	6.6%	6.0%	5.2%

#### Other Trends in Enrollment and Preparation

- Overall enrollment in remedial coursework declined for the fifth consecutive year, and enrollment in remedial math declined for the sixth year in a row. Enrollments in remedial English/writing and reading have declined since fall 2016.
- Overall enrollment in remediation at open admissions institutions has declined from 47.8 percent in fall 2014 to 33.4 percent in fall 2018, and from 21.4 percent in fall 2014 to 12.1 percent in fall 2018 at moderately selective institutions.
- Overall remedial enrollment and enrollment in all content areas (math, English, and reading) continues to decrease among African-American students, although total enrollment of African-American students declined in 2017 and 2018.
- Overall remedial enrollment has increased among Hispanic students after a dramatic decrease from 2013 to 2017 (43.8 percent to 27.2 percent), as their numbers continue to increase dramatically (470 in 2013 to 1,074 in 2018).

#### Performance and Retention in College

The High School Graduates Performance Report also tracks several measures of student success and persistence in Missouri's public postsecondary sector. This year's report provides data about performance and retention in college for the public high school graduating class of 2017. Detailed summary tables are included in the attachment to this item. Among the more significant findings for this cohort are:

- Fall-to-fall retention decreased from 76.9 percent for the fall 2016 cohort to 76.4 percent in 2017. Retention for increased for African-Americans, Hispanics, and Asian / Pacific Islanders over 2016, but decreased for Caucasian students. Female retention was 78 percent, a 0.8 percent decrease from fall 2016, compared to male retention at 74.2 percent, a 0.5 percent decrease from fall 2016.
- On average, this cohort completed 33.6 credits by the end of the spring 2018 term with a 2.89 grade point average. Asian/Pacific Islanders completed 37.1 credits with a 3.05 GPA, African-Americans completed 21.6 credits with a 2.37 GPA, and Caucasians completed 35.2 credits with a 2.96 GPA. Females completed 34.2 credits with a 2.98 GPA, compared to males, who completed 32.7 credits with a 2.77 GPA. Credits completed include dual/advanced credit completed prior to enrollment.
- Average first-term GPAs remained largely unchanged for all ethnic groups. Average first-term GPA has increased slightly from 2.81 in fall 2016 to 2.83 in fall 2017 for all students.

- Overall, 86.9 percent of fall 2017 entering students completed their first spring semester and 76.4 percent returned for fall 2018. Fall-to-fall retention ranged from 65.9 percent for African-Americans to 87.9 percent for Asian / Pacific Islanders.

### **Degree Completion**

The timely completion of a certificate or degree is an additional indication of how well prepared Missouri's high school graduates are for college-level work. Detailed tables in the attachment to this item show the six-year graduation rate of students beginning college in the fall of 2012. The findings include:

- 49.4 percent of incoming public Missouri high school students who entered as a first-time, full-time degree-seeking student in fall 2012 had earned a two- or four-year degree from a public Missouri college or university by spring 2018. This is an increase over the 2011 cohort (48.9 percent). This rate does not account for transfer or completion from an independent or out-of-state institution.
- 36.1 percent had earned a bachelor's degree, 17.4 percent earned an associate's degree, and 2.4 percent earned a graduate or professional degree within six years. All percentages represent a slight increase over those of the 2011 entering cohort. Some students earned more than one degree, and are counted here more than once.
- As part of a continuing trend, females were more likely than males (51.8 percent compared to 46.4 percent) to have earned a degree within six years, as were students enrolled at highly selective (80 percent) and selective (67.0 percent) institutions.

### **Next Steps**

MDHE also implemented the Higher Education Core Transfer Curriculum (CORE 42) on August 1, 2018, to impact student access and success by reducing barriers to degree completion by ensuring the seamless transfer of credits and reducing wasted credits and time-to-completion. The CORE 42 outlines a specific framework for general education completion by identifying specific knowledge and skills students should possess upon completion of the general education framework, and identifying specific courses that transfer seamlessly between institutions.

Additionally, MDHE is working with institutions to develop academic maps that take the guesswork out of course selection and streamline the registration process for students. Traditional advising models are replaced with proactive, intentional, and interventional models that identify when students are in danger of falling off-track. MDHE is working with 12 institutions who failed to meet performance funding completions measures for three years in a row to implement and scale guided pathways and proactive advising. The second phase of this initiative will be in scaling pathways statewide. Based on empirical research in these areas, it is anticipated that these efforts will also increase student performance, retention and completion rates over time.

### **RECOMMENDATION**

This is an information item only.

### **ATTACHMENT**

- Enrollment and Preparation, Performance and Retention in College, and Degree Completion Tables

**Tab 13 Attachment**

**Enrollment and Preparation, Performance and Retention in College, and Degree Completion Tables**

**Enrollment and Preparation**

Table 1: Recent Public Missouri High School Graduate Enrollment by Sector, Gender, and Race/Ethnicity, 2008 to 2018														10-Year % Change		1-Year % Change	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018						
<b>Overall Enrollment</b>	21,598	22,228	23,948	23,742	21,018	22,034	22,443	21,453	21,833	22,160	22,067			2.2%		2.2%	-0.4%
<b>Two-Year</b>	9,227	10,504	11,225	11,279	9,132	10,393	10,610	9,303	9,769	10,423	10,401			12.7%		12.7%	-0.2%
	42.7%	47.3%	46.9%	47.5%	43.4%	47.2%	47.3%	43.4%	44.7%	47.0%	47.1%						
<b>Four Year</b>	12,371	11,724	12,723	12,463	11,861	11,641	11,833	12,150	12,064	11,737	11,666			-5.7%		-5.7%	-0.6%
	57.3%	52.7%	53.1%	52.5%	56.4%	52.8%	52.7%	56.6%	55.3%	53.0%	52.9%						
<b>Women</b>	11,755	12,013	13,067	12,997	11,596	12,175	12,342	11,816	11,983	12,275	12,169			3.5%		3.5%	-0.9%
	54.4%	54.0%	54.6%	54.7%	55.2%	55.3%	55.0%	55.1%	54.9%	55.4%	55.1%						
<b>Men</b>	9,838	10,211	10,863	10,733	9,397	9,844	10,092	9,628	9,840	9,872	9,881			0.4%		0.4%	0.1%
	45.6%	45.9%	45.4%	45.2%	44.7%	44.7%	45.0%	44.9%	45.1%	44.5%	44.8%						
<b>African American</b>	2,055	2,269	2,433	2,553	1,525	2,209	2,065	2,010	2,138	1,870	1,794			-12.7%		-12.7%	-4.1%
	9.5%	10.2%	10.2%	10.8%	7.3%	10.0%	9.2%	9.4%	9.8%	8.4%	8.1%						
<b>Caucasian</b>	17,723	17,758	18,381	18,011	14,289	17,215	17,071	16,792	17,007	16,097	15,907			-10.2%		-10.2%	-1.2%
	82.1%	79.9%	76.8%	75.9%	68.0%	78.1%	76.1%	78.3%	77.9%	72.6%	72.1%						
<b>Hispanic</b>	481	486	374	343	275	470	620	846	885	1019	1,074			123.3%		123.3%	5.4%
	2.2%	2.2%	1.6%	1.4%	1.3%	2.1%	2.8%	3.9%	4.1%	4.6%	4.9%						
<b>Asian / Pacific Islander</b>	372	347	408	395	333	486	537	497	489	449	456			22.6%		22.6%	1.6%
	1.7%	1.6%	1.7%	1.7%	1.6%	2.2%	2.4%	2.3%	2.2%	2.0%	2.1%						
<b>Other</b>	967	1,368	2,352	2,440	4,596	1,654	2,150	1,308	1,314	2,725	2,836			193.3%		193.3%	4.1%
	4.5%	6.2%	9.8%	10.3%	21.9%	7.5%	9.6%	6.1%	6.0%	12.3%	12.9%						

**Data Source: Enhanced Missouri Student Achievement Study (EMSAS)**

Table 2: Recent Missouri Public High School Graduate Enrollment in Remediation by Institutional Admissions Selectivity; 2014 to 2018						
	2014	2015	2016	2017	2018	
<b>Selective</b>	<b>10.5%</b>	<b>9.6%</b>	<b>9.4%</b>	<b>8.8%</b>	<b>7.6%</b>	
Math	9.5%	8.7%	8.8%	8.3%	7.0%	
English	1.6%	1.4%	1.1%	1.1%	1.2%	
Reading	-	-	-	-	-	
<b>Mod Selective</b>	<b>21.4%</b>	<b>22.5%</b>	<b>19.7%</b>	<b>19.4%</b>	<b>12.1%</b>	
Math	13.0%	15.5%	11.7%	12.1%	10.1%	
English	11.1%	10.3%	10.2%	10.3%	3.8%	
Reading	3.4%	0.5%	0.5%	0.2%	-	
<b>Open</b>	<b>47.8%</b>	<b>45.2%</b>	<b>42.2%</b>	<b>33.5%</b>	<b>33.4%</b>	
Math	41.7%	38.9%	34.5%	25.8%	26.7%	
English	20.0%	16.7%	19.2%	15.8%	14.0%	
Reading	13.8%	12.8%	13.4%	11.6%	10.0%	
<b>Source: Enhanced Missouri Achievement Study (EMSAS)</b>						

Table 3: Recent Missouri Public High School Graduate Enrollment in Remediation by Gender; 2014 to 2018						
	2014	2015	2016	2017	2018	
<b>Women</b>	<b>32.4%</b>	<b>29.9%</b>	<b>28.3%</b>	<b>24.5%</b>	<b>22.8%</b>	
Math	28.2%	25.9%	23.5%	19.5%	18.9%	
English	12.2%	9.9%	11.6%	10.3%	8.2%	
Reading	8.4%	6.4%	7.0%	6.4%	5.7%	
<b>Men</b>	<b>28.7%</b>	<b>26.1%</b>	<b>24.9%</b>	<b>20.7%</b>	<b>19.8%</b>	
Math	23.6%	21.2%	19.0%	15.1%	15.8%	
English	12.4%	10.2%	11.2%	9.8%	8.1%	
Reading	6.6%	5.8%	6.1%	5.4%	4.6%	
<b>Source: Enhanced Missouri Achievement Study (EMSAS)</b>						

**Table 4: Recent Missouri Public High School Graduate Enrollment in Remediation by Race / Ethnicity; 2014 to 2018**

	2014	2015	2016	2017	2018
<b>African-American</b>	<b>52.5%</b>	<b>47.0%</b>	<b>52.6%</b>	<b>46.0%</b>	<b>38.2%</b>
Math	44.0%	40.4%	43.1%	35.4%	30.8%
English	32.1%	23.8%	32.6%	28.1%	23.4%
Reading	23.9%	18.3%	23.6%	19.3%	17.1%
<b>Caucasian</b>	<b>27.0%</b>	<b>25.8%</b>	<b>23.3%</b>	<b>18.8%</b>	<b>16.5%</b>
Math	23.0%	21.7%	18.7%	14.8%	13.3%
English	10.0%	8.3%	8.5%	6.7%	6.0%
Reading	5.6%	4.8%	4.6%	3.2%	2.4%
<b>Hispanic</b>	<b>42.4%</b>	<b>32.4%</b>	<b>28.5%</b>	<b>27.2%</b>	<b>30.1%</b>
Math	31.6%	26.1%	22.4%	20.6%	24.5%
English	19.7%	13.2%	11.8%	13.1%	11.4%
Reading	13.4%	5.7%	6.0%	8.9%	8.9%
<b>Asian / Pacific Islander</b>	<b>25.0%</b>	<b>20.3%</b>	<b>20.7%</b>	<b>14.3%</b>	<b>11.8%</b>
Math	18.3%	16.5%	14.3%	10.5%	9.9%
English	12.5%	7.4%	11.5%	6.0%	5.9%
Reading	8.4%	5.6%	6.5%	4.0%	2.6%
<b>Other / Unknown</b>	<b>38.0%</b>	<b>30.5%</b>	<b>31.0%</b>	<b>30.1%</b>	<b>36.9%</b>
Math	34.6%	26.2%	25.0%	21.2%	31.3%
English	9.1%	9.7%	13.9%	16.9%	9.8%
Reading	5.4%	5.4%	6.7%	11.8%	12.3%

**Source: Enhanced Missouri Achievement Study (EMSAS)**

## Performance and Retention in College

Table 5: Recent Missouri Public High School Graduate Retention by Gender and Race/Ethnicity; Fall 2017 - Fall 2018

	Students	Completed Fall 2017	Avg. Fall 2017 GPA	Avg. Credits Completed (Fall 2017)	Completed Spring 2018	Avg. Spring 2018 GPA	Avg. Credits Completed (Spring 2018)	Enrolled Fall 2018
<b>Female</b>	<b>12,275</b>	<b>98.1%</b>	<b>2.94</b>	<b>22.0</b>	<b>88.4%</b>	<b>2.98</b>	<b>34.2</b>	<b>78.0%</b>
African American	1,251	97.6%	2.39	11.9	84.7%	2.45	21.9	68.0%
Caucasian	9,434	98.2%	3.03	23.6	89.0%	3.06	36.2	79.8%
Hispanic	565	98.4%	2.76	19.7	87.7%	2.80	31.1	75.7%
Asian / Pacific Islander	262	97.3%	3.12	24.9	93.5%	3.05	37.3	87.0%
Other/Unknown	763	97.5%	2.75	18.8	85.8%	2.78	30.3	71.8%
<b>Male</b>	<b>9,872</b>	<b>97.8%</b>	<b>2.69</b>	<b>20.4</b>	<b>84.9%</b>	<b>2.77</b>	<b>32.7</b>	<b>74.2%</b>
African American	806	97.1%	2.07	11.6	77.5%	2.25	21.2	62.7%
Caucasian	7,741	97.8%	2.77	21.6	86.0%	2.83	34.1	75.7%
Hispanic	453	98.2%	2.48	19.2	84.5%	2.63	30.5	72.6%
Asian / Pacific Islander	221	99.1%	3.04	23.7	91.8%	3.05	37.0	89.1%
Other/Unknown	648	97.8%	2.44	17.1	78.8%	2.60	28.4	66.5%
<b>Total</b>	<b>22,160</b>	<b>98.0%</b>	<b>2.83</b>	<b>21.3</b>	<b>86.9%</b>	<b>2.89</b>	<b>33.6</b>	<b>76.4%</b>
African American	2,060	97.4%	2.27	11.8	81.8%	2.37	21.6	65.9%
Caucasian	17,184	98.0%	2.91	22.7	87.6%	2.96	35.2	78.0%
Hispanic	1,019	98.3%	2.63	19.4	86.3%	2.73	30.8	74.3%
Asian / Pacific Islander	483	98.1%	3.08	24.4	92.7%	3.05	37.1	87.9%
Other/Unknown	1,414	97.6%	2.61	18.0	82.6%	2.70	29.4	69.2%

**Source: Enhanced Missouri Achievement Study (EMSAS)**

Table 6: Recent Missouri Public High School Graduate Retention by Sector and Race/Ethnicity; Fall 2017- Fall 2018								
	Students	Completed Fall 2017	Avg. Fall 2017 GPA	Avg. Credits Completed (Fall 2017)	Completed Spring 2018	Avg. Spring 2018 GPA	Avg. Credits Completed (Spring 2018)	Enrolled Fall 2018
Public 2Y	10,432	97.2%	2.60	18.6	80.9%	2.71	28.6	66.5%
African American	955	96.6%	2.07	8.2	74.9%	2.24	15.6	55.2%
Caucasian	8,070	97.3%	2.69	20.2	81.8%	2.78	30.6	68.3%
Hispanic	511	97.4%	2.38	16.9	82.3%	2.49	25.4	64.3%
Asian / Pacific Islander	147	96.6%	2.84	20.0	87.7%	2.78	27.7	77.5%
Other/Unknown	740	96.7%	2.42	15.6	77.3%	2.57	24.8	60.5%
Public 4Y	11,737	98.6%	3.02	23.6	92.0%	3.02	37.4	85.0%
African American	1,105	98.1%	2.43	14.9	87.8%	2.47	26.1	75.2%
Caucasian	9,114	98.7%	3.11	24.8	92.8%	3.10	38.9	86.5%
Hispanic	508	99.2%	2.89	21.9	90.3%	2.94	35.7	84.4%
Asian / Pacific Islander	336	98.8%	3.19	26.2	94.9%	3.16	41.0	92.5%
Other/Unknown	674	98.5%	2.81	20.5	88.4%	2.83	33.8	78.7%

**Source: Enhanced Missouri Achievement Study (EMSAS)**



## Degree Completion

Degree Completion Table 7: Recent Missouri Public High School Graduate Six-Year Completion Rate by Gender and Race/Ethnicity; Fall 2012 through Spring 2018

	Students	% Completed Associate's	% Completed at Least Bachelor's	% Completed Graduate/Professional	Total Completions
<b>Female</b>	<b>12,296</b>	<b>18.5%</b>	<b>37.8%</b>	<b>2.8%</b>	<b>51.8%</b>
African American	1,342	6.7%	23.3%	0.6%	29.1%
Caucasian	9,311	19.9%	41.0%	3.3%	56.1%
Hispanic	700	29.1%	23.1%	0.7%	45.9%
Asian / Pacific Islander	214	15.4%	48.6%	4.2%	61.2%
Other/Unknown	729	12.6%	34.2%	2.9%	42.4%
<b>Male</b>	<b>9,989</b>	<b>16.2%</b>	<b>33.9%</b>	<b>1.8%</b>	<b>46.4%</b>
African American	864	6.0%	17.5%	0.6%	22.7%
Caucasian	7,789	17.3%	36.7%	1.9%	50.0%
Hispanic	547	22.1%	21.8%	0.9%	38.2%
Asian / Pacific Islander	203	9.4%	45.8%	5.4%	53.2%
Other/Unknown	586	13.1%	29.0%	1.7%	38.9%
<b>Total</b>	<b>22,310</b>	<b>17.4%</b>	<b>36.1%</b>	<b>2.4%</b>	<b>49.4%</b>
African American	2,206	6.4%	21.0%	0.6%	26.6%
Caucasian	17,117	18.7%	39.0%	2.7%	53.3%
Hispanic	1,247	26.1%	22.5%	0.8%	42.5%
Asian / Pacific Islander	418	12.4%	47.1%	4.8%	57.2%
Other/Unknown	1,322	12.8%	31.7%	2.3%	40.6%

**Source: Enhanced Missouri Student Achievement Study (EMSAS)**

**Table 8: Recent Missouri Public High School Graduate Six-Year Completion Rate by Institutional Admissions Selectivity; Fall 2012 through Spring 2018**

	Students	% Completed Associate's	% Completed at Least Bachelor's	% Completed Graduate/Professional	Total Completions
Highly Selective	781	4.2%	77.7%	11.5%	80.0%
Selective	6,707	3.9%	63.6%	5.0%	67.0%
Moderately Selective	3,526	5.2%	49.8%	2.0%	53.4%
Open	11,296	30.2%	12.5%	0.3%	35.5%

**Source: Enhanced Missouri Student Achievement Study (EMSAS)**